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Horticultural Society

MASSACHUSETTS PLOUGHMAN AND NEW ENGLAND JOURNAL OF AGRICULTURE.

DEVOTED TO AGRICULTURE, HORTICULTURE, THE FARM, THE GARDEN, THE FIRESIDE, RURAL LIFE, LITERATURE, USEFUL ARTS, NEWS, &C.

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Editorial.

THE DRY WEATHER.

Its Effects on Hilled and Level Culture.

In those sections of the country where no rain has fallen for several weeks, the difference between level and hilled culture, is so marked, that no one can fail to see it. In such localities the potatoes that have been hilled are entirely dried up, and will not pay the digging; except those that were planted early; while those that have been cultivated level are yet in good order; and if seasonable rains come will give a fair yield. What is true of potatoes is true of corn; though, as yet, the injury is not as great; but we have seen some fields of corn in the dry districts that have been hilled so high as to be past recovery, unless heavy rains come at once.

The immense loss which will be sustained this year by the hilling process ought to stir the farmer up to a change; but we suppose but few will realize that they can do anything to carry crops safely through a drouth; yet it is a fact that he who fully understands the best method of cultivation, will very seldom sustain much loss to his hoed crops, by drouth. His land is kept level and thoroughly pulverized near the surface; always cultivating often enough to prevent the formation of a crust; thus keeping up a constant drought of moisture from below; while he who adopts the hilling system finds it impossible to keep his land well pulverized on the surface. By hilling he scrapes up all the fine earth and places it around the hill, where it soon forms a crust that will shed all of the water that may fall; and the hollows between the hills, not being well pulverized on the surface, bake hard, and thus the whole surface is crusted over, and is so uneven that it is not easily stirred. The effect of this is not only to compel what water that falls to break through the crust in the hollows, and thus descend at once to the subsoil in large streams, where it passes off by the underground streams to the rivers; but the crust also prevents the upward current of moisture, just the same as a crust on the wick of a lamp prevents the upward current of oil; when the oil on the top of the wick is exhausted by the flame, the light goes out and leaves the wick dry; and when the sun burns out all of the moisture in the crust it leaves the soil dry, because the soil has no power to draw moisture from below.

LIGHTNING RODS.

Of late years so many buildings have been injured by lightning, that were supposed to be fully protected with lightning rods, that public opinion is becoming somewhat changed in regard to the efficacy of lightning rods. We apprehend that in many, perhaps the most of cases, where damage has been done, it has been caused by the rods being imperfectly constructed, or put up wrong, or perhaps permitted to get out of order after being put up.

Some men who put up rods do not understand their business; others finding the owner of a building unwilling to pay the price that it will cost to fully protect his building, will put up half rods enough to protect it and assure the owner it is fully protected.

If an iron rod is put on a building with points to attract the electricity from the passing clouds, it is of the highest importance that it should be so put up that it will carry off all that it attracts, or it had better not be on the building. If the end of the rod does not reach the ground, the charge of electricity will leave the rod, and in all probability enter the building and greatly injure it. This is a well understood fact, yet many buildings have rods on them that have been broken off, and so do not reach the ground; in many cases the owners know this but do not take the trouble to repair the break. It is also well known that to carry off the electricity safely, the end of the rod must descend to moist earth; but notwithstanding this well known fact, many rods are put up so that the rod descends into the ground so little depth, that the ground at the end of the rod is dry most of the summer.

It is laid down as a rule, that a point of a rod will protect only a circle twice the diameter of the height of the point above the building, yet how many endeavor to protect a thirty feet building, with one or two points only five feet above the building, thus protecting less than two ninths of the building. Sometimes we see rods running across the roof in different directions, with little points every foot or two in length but with only one, or at most two rods descending to the earth, thus inviting a large amount of electricity, without making the proper provision to carry it off.

Those who have rods on their houses should carefully examine them every year and see that they are put in proper condition; or if not, to remove them altogether; for it is always dangerous to have a lightning rod on a building that is not properly put up, and always kept in good order.

RE-SEEDING MOWING LAND.

In some sections of Massachusetts the farmers devote so large a portion of their land to the hay crop, and so small a portion to hoed crops, that some of their grass land must remain in grass many years before it can be ploughed and planted; so many, that the crop of hay is very much diminished in amount, and reduced in value, in consequence of the coarser grasses displacing the better varieties.

Hervy dressings of manure will do much to increase the quantity, and improve the quality of hay, but it is often an operation so expensive that it does not pay. If the land is of a character that it cannot be easily ploughed, resort may be had to another method to improve the quality of hay, that is sometimes practiced in Europe, which is to sow on a liberal quantity of grass seed, then give the land a good dressing of fine compost manure, after which, the land is well harrowed over with a heavy harrow made with very sharp teeth. The work should be done in August.

If the land is not very rocky, and can be ploughed so as to leave it in a condition to harrow level, the best way to treat a run down mowing field, is to plough it as soon as the middle of August; pulverize it well with an improved harrow, and at the same time apply a liberal dressing of manure; this should be as thoroughly mixed with the soil as possible. After being made level and smooth the grass seed should be sown and brushed in. If the work is completed by the 20th. of August, a good crop may be expected the next year.

Many farmers formerly made a mistake by not sowing seed enough, and even now some do not seem to realize how important it is to have the ground well covered at the start with the young plants; one protects the other when they stand very near each other; but if two or three inches apart, the sun bakes the ground so hard that the plants dry up and die. Successful farmers now understand this and are more liberal in the amount of seed they sow. A mowing field thus turned over and seeded down will be greatly improved and will produce for some years a very much larger amount of hay.

TRIMMING GRAPE VINES.

There are but few, if any, departments of horticulture that cultivators differ so much, as in pruning grape vines. While some insist that it is best to cut the new wood back to within one or two buds of the old wood, others are very positive in their opinion that the knife should rarely be used, except to remove very old or dead wood; that all of the trimming should be done by pinching back the growing shoots. Between these two extremes may be found all shades of opinions; each one supporting his idea with numerous arguments, based upon practical experience.

The successful growing of our present choice varieties of outdoor grapes is attended with so many difficulties that few cultivators may be said to be very successful, except in a small way, whatever may be their method of trimming. If one has a good sheltered location, where a vine can be trained to the side of a building, grapes of fair quality may be grown with but little trouble, whether the vine be trimmed or not. We chanced to know of an Isabella vine growing in a very sheltered position, that has not failed to produce a good crop of fruit more than three years in the last twenty-five, yet it has been permitted to have very much its own way, never having been trimmed but very little. From this we are led to the conclusion that success in growing grapes depends more on location than on the methods of trimming. If large-sized fruit and heavy bunches are wanted, no doubt close trimming must be resorted to. In field culture it would be very difficult, if not impossible, to grow good market grapes without trimming.

There is one mistake that some make that should always be avoided, namely, trimming while the fruit is ripening so as to let the sun shine on the fruit. From careful observation we are satisfied that it is the leaves that are needed to ripen the fruit more than it is the direct rays of the sun; the best ripened fruit is always found where it is shaded from the sun by the leaves; in fact, when the fruit is fully exposed to the direct rays of the sun, it rarely, if ever, ripens. Therefore, in trimming during August and September, care should be taken not to uncover the fruit.

WHAT IS SAID OF THE GRANGE.

A New York business man has a good opinion of the grange. He says: "I desire to say, that from recent investigations, as I have had opportunity, you are engaged in a noble cause, and one that will commend itself to every right-minded man and woman in the commonwealth; a cause that seeks to elevate manhood and womanhood, by civilization, education, unity and equality, without regard to their financial condition. The development of that object will, I predict, result ere long in a greater prosperity among the masses of the people, and develope a public sentiment that will cause the monopolies of the country to take heed, lest they fall and are crumbled under the feet of the honest tillers of the soil. Then will taxation through this broad land be equalized, and the interests of the farmer and mechanic be respected, and not till then; but the cloud, thank God, of the order that was once no 'bigger than a man's hand,' is now portentous with the words—love and equality to all mankind in their vested rights."

HOW TO CATCH FROGS.

The Washington Star thus tells how frogs are caught in the Potomac: The manner of catching them is to drift about at night in a skiff among the swamps which line the Potomac and its creeks with a bull's-eye dark lantern. When the frogs begin their loud, gutteral conversations with each other, the hunter edges up as near as possible to his game and throws the intensely reflected light from the bull's eye directly upon the frog, which appears to have the effect of completely paralyzing him. Once the light strikes them they are immovable, and will suffer themselves to be bagged without a murmur. One expert stated to a Star reporter that he took a dozen from off one old rotten log in Hunting Creek, but a big moccasin snake struck out for him, and in getting away he lost nine of them. The frogs are particularly plump this year, and their saddles tender as squab meat.

☞ The use of coal ashes in the hen house is very beneficial, both as an absorbent and as a check to vermin, which do not thrive well on it.

THE STATISTICAL AGENTS

Of the United States Department of Agriculture.

Commissioner Loring in applying the appropriation recently made by Congress, has decided to appoint a Statistical Agent for the Department in each State and Territory in the Union. The duty of such agents will be to collect information from the most reliably sources; to correspond with Boards of Trade and Agriculture; to secure statistics of agricultural products, and to make a monthly report to the Department. In collecting information the agents will have the benefit of the county correspondents who collect statistics for the Department.

The following are the names of the State Agents already appointed, forwarded direct to the *Ploughman*, by the United States Commission of Agriculture:

Arkansas—ROBERT V. YEAKLE, Little Rock.
Colorado—E. W. AYERS, Denver.
Connecticut—T. S. GOLD, West Cornwall.
Delaware—J. THOMAS BUDD, Middletown.
Florida—J. G. KNAPP, Limona.
Indiana—JAS. H. RINARD, La Fayette.
Iowa—HON. COLE NOEL, Adele.
Kansas—JAS. M. MCFARLAND, Topeka.
Kentucky—COL. C. E. BOWMAN, Frankfort.
Louisiana—W. H. HARRIS, New Orleans.
Maine—SAMUEL L. BOARDMAN, Augusta.
Maryland—W. W. W. BOWIE, Baltimore.
Massachusetts—EDMUND HERSEY, Hingham.
Michigan—LEBO M. MILLER, Lansing.
Mississippi—F. C. MOREHEAD, Vicksburg.
Nebraska—D. H. WHEELER, Plattsmouth.
New Hampshire—ARTHUR EASTMAN CLARKE, Manchester.
New Mexico—JOSE D. SENA, Santa Fe.
New York—F. D. CURTIS, Charlton.
North Carolina—MONTFORD MCGEHEE, Raleigh.
Pennsylvania—JAMES H. ONSLOW, Harrisburgh.
South Carolina—L. A. RAWSON, Columbia.
Tennessee—IRA P. JONES, Nashville.
Vermont—HENRY CLARKE, Rutland.
Virginia—DR. J. M. BLANTIN, Richmond.

GREEN RYE AS FODDER.

[American Rural Home.]

In regard to the actual value of green rye used as a fodder the past season, the following facts may be considered, as given by a writer in the *Times*: Seven young cows in full flush of milk, having calves from two to six months old, and having no distinguishing characteristics by which a change of feed should fail to act upon the product of milk and butter with one more than another, had been fed for some time upon 15 pounds of mixed clover and Timothy hay and common meadow hay mixed, cut, wetted, and mixed with 10 pounds of mixed corn-meal and wheat middlings daily. The yield had been very regularly 112 pounds of milk per day and 48 pounds of butter weekly from the whole seven cows. The rye became ready for cutting on the 10th of May, when the first heads began to appear. The daily ration was 60 pounds, part cut and wetted and mixed with the meal as before, and part fed whole, but all was eaten up clean. The second week after feeding the rye the yield of milk was 168 pounds per day, and the weekly make of butter increased to 65 pounds. It will be seen that the fresh, green fodder, while it largely added to the produce of milk, did not quite increase in proportion to the yield of butter, for while on dry feed 16 pounds of milk made a pound of butter, 18 pounds were required when the rye was fed. As the rye approached to blossoming and became heavier, and the weather became warmer, the ration of meal was decreased gradually until but six pounds of mixed feed were given daily, and at the present writing the yield of milk is slightly decreased, but the weekly churning has undergone no diminution.

SAVING VEGETABLE SEEDS.

[American Agriculturist.]

If there are many varieties of the same vegetable in a garden, it is impossible to save the seeds of some in an unmixed state. Sweet Corn, and all of the squash family, are quite sure to "mix." On the other hand, Peas and Beans rarely cross. If one saves seeds of any vegetable, let it be of the best. Instead of leaving the last Peas on the vines for seed, set apart a portion of a row for seed, and let none be picked from it. By proper care, the quality of a vegetable may be improved. In saving Lima Beans, we have for several years selected only those with four beans in a pod; as a consequence, the greater number of pods in the whole crop now have four beans. The selection of the first ripened and best formed Tomatoes for seed will have a marked effect upon future crops, and this is the case with all other vegetables. If one has a choice Melon he would preserve in its purity, the surest method is to fertilize a few female flowers. Take a male flower of the same kind that is shedding its pollen, remove the corolla, to expose the stamens. Select a female flower that is just ready to open, but has not been visited by insects; open it, and apply the stamens to the pistil of that flower. Cover the flowers thus operated upon by a bit of muslin until the fruit begins to grow.

MANURE UNDER COVER.

[Lancaster Farmer.]

Of course all the advantage of making manure in covered yards may be secured by box feeding, with less outlay for roofing, since more space must be allowed for a given number of animals turned loose together than when confined in stalls. It is the protection from rain and sun, the abundant use of litter and its thorough incorporation with the excrements, and the exclusion of air by compact treading, which go to make the superior manure. All these features of the method work against the loss of valuable plant food. Nor does box feeding and constant accumulation of manure under the feet of the animals necessarily imply offensive stalls.

One method or the other, box feeding or covered yards, should be adopted by every farmer who lives where manure is worth saving, and who finds himself compelled to supplement his stable manure with commercial fertilizers. Stable manure must not be lost sight of, in this increasing interest in these concentrated fertilizers, for we cannot produce our crops and have enough for ourselves and others, without its aid; and there is nothing in all the list of commercial mixture, which gives so good an average return for the money invested in it, as well-made stable manure.

☞ E. P. Roe says that the secret of success in small fruit culture is found in two words, stimulation, restriction. By stimulation he means a thoroughly pulverized and enriched soil. This is especially essential to the strawberry, the foreign raspberry, and all the currants. A rampant growing raspberry like the Cuthbert or Turner, and our vigorous blackberries, do not require stimulation, but they do restriction. By restriction is meant the development of fruit rather than wood or vines. Set out a strawberry plant is a very deep, rich, moist soil, and its first tendency is to follow the great law of nature, and propagate itself, but to the degree that it makes plants it cannot make fruit. Cut off every runner and enormous fruit buds are developed. The sap is dammed up as a miller restricts a stream, and the result is strawberries that are double in size and quantity. This is equally true of raspberries. Currant bushes crowded with wood bear little fruit.

Written expressly for the Massachusetts Ploughman.

FARMING IN MAINE.

BY J. W. LANG.

The Climate—The Crops—Animal Products—The Surface of the State, etc, etc, etc.

Maine has long winters and short summers. There is an intermediate redeeming feature in the long drawn connecting links of spring and autumn. Affected by the inshore current from the Arctic seas, and the prevailing land winds blowing thousands of miles across the great Northern half of the continent; cold at their outset, and not modified in their journey by the frigid mountain tops of the Canadian highlands, the Green and White mountain chains, they bring the very coolest of airs. Our opposite winds come moisture laden from the Atlantic ocean, first warm, but cooled later by the cooler stratum of the arctic current in-shore of the Gulf stream. A due east or a due west wind is a rarity, and of not long duration.

The principal crops grown are grass, corn, wheat, potatoes, oats, barley, buckwheat, root-crops, and fruit, such as apples, pears, plums, strawberries, raspberries, blackberries, cranberries, grapes. The three great farm staples are grass, potatoes, corn, and in the superior excellence of the two first, Maine stands unrivalled both in extent of production and excellence of product by any other New England State. Of animalized products, beef, butter, cheese, wool, mutton, lambs, eggs, poultry are produced in large quantities, and an encouraging feature of this is that the quality of animal products, in nearly all instances are gradually growing better. Maine is dependent upon Boston for the marketing of her surplus; and hardly a product of our soil or our farms but what can be raised, if intelligently handled, at a margin of profit. The means of transportation is so good by railroad, and by steamboat, or sailing craft, that freights are not exhorbitant, and increasing facilities by reason of competition are almost yearly making freights lower.

The winter of 1881 was a mild one, and in this respect hardly up to the average of cold deep snows covered the fields with a warm blanket, and a long time of sledding was experienced. The spring opened usually early, and farm operations began in the last week of April and first weeks of May. Two heavy rain storms after the middle of May, a week apart put work on heavy land back for two or three weeks later than ordinary. Grass grew finely. June witnessed as fine a promise hay as is seldom seen. June proved cool and wet; too much so for favorable and healthy growth of crops. The last part of June was dry, with the dry weather running well into July. Corn and most hoed crops, and grain, but more especially corn, the Fourth of July looked from two to four weeks backward. The hay season was fine for the first week, followed by three weeks of rainy, foggy, damp weather, and during this much hay was wholly or partially spoiled. This was followed by good weather and the hay crop which was an average one; on the whole was better than the expectations at the outset.

An early descent of rust killed potato vines and stopped growth of the tubers; cutting down the yield three-fourths; many farmers not raising enough for use and seed.

A frost June 7th. killed beans, corn and potatoes in most localities. The fall was wet and cool, grass grew immediately after the scythe and the fields during the late summer and the whole fall had a June greenness and luxuriance. The yield of grain was average. Corn lacked ripeness in many instances, and had an overgrowth of stalk. The root crops were fully an average; pumpkins, squashes, cucumbers and melons did very well.

The surface of Maine is rolling, hilly, and in places rough and mountainous. It is well watered by rivers and a perfect net work of streams and brooks; hundreds of lakes dot the surface, and the soils are all kinds, from sand to clay, from gravel to muck. Naturally strong as they came from the hand of Nature, and from the forest era, they are now in all stages from fertility to sterility as they have been wisely or unwisely used. Depletion of National fertility is the price every country must pay for settlement and civilization. The pioneers are poor men. They go out into wild lands because they are poor. They must wrest from the virgin soil not only their own and their family's support, but the cost of roads, bridges, buildings, stock, cost of schooling and clothing, and their share of all public burdens, without being able to return much equivalent to the soil. Succeeding generations find a settled country, a civilized community, old established customs, habits, society and social advantages, schools, churches, stores, buildings, fences, cleared fields, but an impoverished soil. It is the work, in turn for succeeding generations to upbuild and restore these farms to their former vigor and production, and leave them better than they found them.

The axe is the emblematical implement in all new forest covered countries. The new formative era of clearings and coverings of farms from primitive wilds is typified by the axe and the axeman. It requires muscle and will, and strong sturdy blows. The cleared farm era is the era of the plough that brakes up and overturns and levels and breaks down and cultivates and improves.

Brooks, Me.

THE ENGLISH SPARROW.

The anticipation of those who imported the English sparrows was, that they would aid greatly in the destruction of insects, and thus give to the vegetable life of this part of the country a better opportunity for development. The sparrows have flourished well and multiplied prodigiously; but while it has in some places been useful in keeping insects in check, has, as a general thing, made itself quite too much at home, and has proved a nuisance. It is very quarrelsome and drives away our native birds that would be more useful to us. The bird has proved to be, on the whole, an undesirable one, and will yet prove a bad venture. At the time they were imported we had a raw Englishman at work for us, and he used often to remark that the day would come when the Americans would wish they had left the sparrows across the water.—*Mirror and Farmer.*

☞ Much may be saved in winter feeding by keeping grain straw bright and clean. Straw is not a good feed alone, but its use will enable the farmer to keep more stock with his grain and hay than he otherwise could.

The Poultry Interest.

ONIONS FOR CHICKEN CHOLERA.

A correspondent of the *Poultry Yard* thus describes his new remedy for chicken cholera: "While our neighbors for several miles around us, have lost nearly all their chickens from the so-called cholera, ours are in fine condition. They were attacked with the premonitory symptoms of the disease, which seemed to be epidemic here, but we cured them and have no trouble with them since, having accidentally found a cure. Cut up onions with food, and administer once a day for several days, afterward once a week will answer. Also mix a little ground ginger with their meal, once every day or two. We also give them a little salt every two or three weeks, which we deem highly necessary, and, above all things, keep watermelons, muskmelons and cucumbers away from them. The tops of celery cut up with their food will be found beneficial, and they appear to like it very well. Do not get these statements mixed up. The onions and ginger only for the cholera, the remainder constant attention. Too much whole corn we have found injurious; we give meal, of this only once in three or four days. Raw onions and a very little ginger against the world for curing cholera, if the disease has not been allowed to run too far." We endorse heartily the raw onions and ginger, but have never found melons injurious. Last summer we raised, in an amateur way, nearly three hundred chickens and turkeys. Bushels of melon rinds and imperfect melons of both kinds were thrown to them daily and eaten eagerly. Over-ripe cucumbers and seeds of muskmelons were likewise devoured. We had no losses from any disease.

REMEDY FOR CHICKEN CHOLERA.

Here is a remedy, or preventive of the chicken cholera, which I have successfully used for two years. While my neighbors have been losing nearly their entire flock mine have been healthy, and I have never had a case to my knowledge: Take a barrel, saw it asunder in halves, put about three quarts of unslaked lime in one of the halves, together with half a pound or one pound (to suit the necessity) of alum; fill the half barrel with water; when slaked and settled take from one pint to one quart (as the case requires) and put it in every pail of water given the fowls to drink. The lime will answer for a second half barrel of water, but the same quantity of alum should be added as before. If continued daily during the sickly season I can from my experience, assure readers of the Rural that their fowls will not be troubled with the chicken cholera.—C. S. COOPER. in *Rural New Yorker.*

Horticulture.

ROOT PRUNING.

[London Garden.]

The experiments were made on the apple and pear. A vigorous apple tree, eight or ten years old, which had scarcely made any fruit buds, has done best when about half the roots were cut in one season and half three years later, by going half way around on opposite sides in one year and finishing at the next pruning, working two feet underneath to sever downward roots. It has always answered well also to cut from such trees all the larger and longer roots about two and a half feet from the stem, leaving the smaller and weaker ones longer, and going half way around, as already stated. The operation was repeated three or four years later by extending the cut circle a foot or two further away from the tree. By this operation unproductive fruit trees become thickly studied with fruit spurs and afterward bore profusely. This shortening of the roots has been continued in these experiments for twenty years with much success, the circle of roots remaining greatly circumscribed. The best time for the work has been found to be in the latter part of August and beginning of September, when growth has nearly ceased and while the leaves are yet on the trees, causing greater increase of bloom buds the following year than when performed after the leaves had fallen.

COAL ASHES FOR CURRANTS.

[National Farmer.]

Common coal-ashes, well distributed about roots of currants, is one of their best promoters. This should be done by loosening the soil about their roots, and placing the ashes near them, cover firmly with earth above, and the bushes will bear such clusters as will speak the beneficial effects of this application of material too commonly thrown aside as of no use. Cherry trees also gratefully accept this renovator, and if carefully bedded about the roots with coal-ashes in the fall the yield of fruit the following year will surprise the cultivator. Especially is this effect produced in the black loam of Illinois. We have in our mind one fruit garden there where all the small fruit was treated in this way, and have never seen their yield excelled.

TURPENTINE FOR CURCULIO.

A correspondent of the *Fruit Recorder*, says that cotton soaked in turpentine and hung among the branches of plum trees just as the blossoms are falling and frequently renewed until the plums are half grown will effectually protect the fruit from the depredations of the curculio. If Gum Camphor or any essential oils, such as peppermint, pennyroyal, sassafras, etc., are dissolved in the turpentine it produces an odor so strong that it becomes intolerable to all insects.

TOMATO CATSUP—TOMATO SAUCE.

[American Agriculturist.]

The basis of Tomato Catsup, or Ketchup, is the pulp of ripe Tomatoes. Many defer making catsup until late in the season, when the cool nights cause the fruit to ripen slowly, and it may be it is gathered hurriedly for fear of a frost. The late fruit does not yield so rich a pulp as that gathered in its prime. The fruit should have all green portions cut out, and be stewed gently until thoroughly cooked. The pulp is then to be separated from the skins, by rubbing through a wire sieve, so fine as to retain the seeds. The liquor thus obtained, is to be evaporated to a thick pulp, over a slow fire, and should be stirred to prevent scorching. The degree of evaporation will depend upon how thick it is desired to have the catsup. We prefer to make it so that it will just pour freely from the bottle. We observe no regular rule in flavoring. Use sufficient salt. Season with Cloves, Allspice, and Mace, bruised and tied in a cloth, and boiled in the pulp; add a small quantity of powdered Cayenne. Some add the spices ground fine, directly to the pulp. A clove of garlic, bruised and tied in a cloth, to be boiled with the spices, imparts a delicious flavor. Some evaporate the pulp to a greater thickness than is needed, and then thin with vinegar or with wine. An excellent and useful tomato sauce may be made by preparing the pulp, but adding no spices, and putting it in small bottles while hot, corking securely and sealing. If desired, the sauce may be salted before bottling, but this is not essential. To add to soups, stews, sauces and made dishes, a sauce thus prepared is an excellent substitute for the fresh fruit. It should be put in small bottles, containing as much as will be wanted at once, as it will not keep long after opening.

☞ It is of the utmost importance to keep poultry houses and runs free from all filth and decaying matter, and see that their feed boxes and water dishes are clean.

Written expressly for the Massachusetts Ploughman.

THE "ENSILAGE" QUESTION.

BY EDMUND HERSEY.

Having seen many fields of ensilage corn in my recent travels through the State to examine the growing crops, my mind has very naturally turned to the subject of ensilage, which has brought to memory many communications which have appeared in the *Ploughman* during the past winter and spring.

The unpromising appearance of a very large proportion of the fields of ensilage corn very forcibly reminds me of the expressions uttered by nearly every ensilage man, "that he expected to do better next year." Those who have expected to grow more than twenty-five tons of ensilage to the acre this year, had better prepare themselves to meet disappointment, especially if it is planted on land that was in ensilage corn last year; for so far as I have observed, land in ensilage last year does not promise so good yield as on new ground. The same was true last year, even on land heavily manured; so I conclude that fodder corn is not a crop that can be grown on the same land year after year with success.

Having a leisure hour to-day, I have had the curiosity to examine critically some of the communications written by enthusiastic ensilage men. The first one that catches the eye is one published in the *Ploughman*, June 10th, signed by W. O. D. This writer seems very much disturbed because so many of your correspondents occupy a column "in condemning ensilage without any logical or mathematical show," and says "it is very easy to make assertions, but not so easy to prove them," and demonstrates this assertion to be a fact by a long string of figures based upon assertions so unfair that none can be so blind as not to see that the writer is determined that the balance shall be in favor of ensilage if the heavens fail. How unfair to say that an acre of land will produce forty tons of ensilage and only fifty bushels of corn. If there is no better way to bolster up ensilage than by such unfair comparisons, it would be better to let it drop to its natural level. If I desired to oppose ensilage, which I do not, how easy for me to turn the tables and take the largest amount of corn ever *supposed* to have been grown on an acre of land, and compare it with an averaged amount of ensilage that the best authority gives. Can we ever get the real facts by such unfair comparisons and estimates as this writer makes?

In the *Ploughman* of June 3d, I find under the signature of D. H. Goodale an article on ensilage in which he says, "I would suggest to writers upon the subject who are pleased to call ensilage 'rotten stuff' etc., that it would be well for them to visit a silo and examine some properly prepared ensilage before writing further on the subject. Lovers of canned peaches and pears would be hardly willing to call these delicacies 'swill.'" I would suggest to the writer of this that before he writes another article he investigate and find out the difference between canned peaches and ensilage. Unfortunately many other enthusiastic advocates of ensilage have not yet found out the difference between the process of keeping fruit and vegetables, by the canning process and by pressing in a silo. The two systems of preserving are as unlike as sweet is from sour, and yet inteligent men, either ignorantly or for the purpose of misleading, represent the two systems as being alike in results. By one system the germs of destruction are destroyed by heat and the fresh air entirely shut out, by the other none of the spores of destruction are destroyed, and the process of decomposition is only held in check by pressing out as much of the air as possible and keeping it out. As it is impossible to press out all of the air, and as the spores of destruction are present, fermentation cannot be prevented. By one system the sweetness is retained, and by the other it is lost. Why compare them alike or in any way similar?

The next communication that attracts my attention is that of Benjamin P. Ware, in the *Ploughman* of May 20th. This is really one of the fairest statements that I have read, that has been written by an advocate of ensilage. Mr. Ware evidently intends to place the real facts before the people, and leave them to judge of the value of ensilage; and I have no doubt he has so far as he has stated them; but a careful examination of this communication, and of the report of his remarks before the Board of Agriculture, at the Country Meeting at Bridgewater, leads me to conclude that the communication was hastily written, and some very important facts left out, in estimating the value of ensilage.

At the meeting at Bridgewater, Mr. Ware says he put in "three acres of heavy rowen." This was mixed with the corn fodder; and as a matter of necessity must have been fed out with it. In reply to Mr. Taft as to the weight of the rowen, he says "It would probably cure two tons to the acre." "This, I presume, was a fair estimate, if, as he says, it was heavy "and just heading out." This would give for the three acres six tons, which at $20 per ton would be $120. This would have fed Mr. Ware's herd, which, as I understand him, was equal to about fifteen cows, fifty days; estimating sixteen pounds per day for each cow, which is what they eat by actual weight; as Mr. Ware states it. It will be seen at once the only way to get at the real value of the ensilaged corn fodder, the rowen must be first taken out, reckoning the price that it is worth for hay, as the expense of carting it green and cutting it up, together with the additional expense of feeding it out, would be quite equal to curing it; it is only fair that the price should be fixed as dry hay. Thus after deducting the rowen we have only one hundred days left to feed out the eighty tons of corn ensilage to the fifteen cows; which at 16 cents a day, the cost of good English hay, would be $240, or $3 per ton; providing the animals fed will give the same quantity of milk and fatten with the same rapidity as on English hay; as most of the trials prove that the hay is the best, so it is not unfair to the ensilage to call it equal with hay. Another item of expense must be considered by every farmer who already has barn room enough and does not want the ensilage machinery, which is the cost of silo and machinery. Mr. Ware's cost $900; the interest at 10 per cent, which is little enough to keep up repairs and have a fair rate of interest left, would be $90, thus reducing the real value of the eighty tons to the farmer who has barn room enough, to one dollar and eighty-seven and a half cents. Will this pay? Or to say nothing of the cost of the silo and machinery is it not easier to grow an acre of grass than an acre of ensilage? Could not Mr. Ware have as easily grown three tons of hay to the acre as twenty tons of ensilage? if so, the four acres in grass would have fed his stock as long as the eighty tons of ensilage. Where is the great gain? is what the farmers want to know.

Written expressly for the Massachusetts Ploughman.

THE BALDWIN AND OTHER APPLES.

BY CHARLES M. HOVEY.

To the Editor Massachusetts Ploughman:

What is the matter with our Michigan Pomologists and Cultivators? Not content with bringing the whole police force of the State against the inoffending peach tree, because it will not grow in a climate 40 or 50 degrees colder than its native home, they now attack the Baldwin apple, calling it "the last variety almost, that the housewife would select for cooking, or the children for eating." Certainly their taste is fastidious to an intense degree, that they should abuse such an old fruit so universally popular, and so highly extolled by all pomologists, though now a century old. The first description of the Baldwin appears in Thatcher's American Orchardist, (1822) who describes it as follows:

"A very valuable red apple, large and beautiful, fine flavored, and will keep till April. It is in high estimation in Massachusetts."

Next we find Kenrick in the New American Orchardist, (1833) who says:

"This capital variety is a native of Massachusetts; a large beautiful and famous fruit; its flesh is yellow and very rich; saccharine, with a most agreeable acid and excellent flavor. No apple in the vicinity of Boston is so popular as this at the present day." (1833).

Mr. Kenrick's estimate of the fruit was almost prophetic. After just 50 years, no apple is so popular as this at the present day (1882).

The late Robt. Manning of Salem, the well known and eminent Pomologist, whose opinion none will doubt, describes the Baldwin in the Magazine of Horticulture, (vol. 7 for 1841) as follows:

"Well known and extensively cultivated in the New England States. So far as our own taste can be trusted we prefer it to any other Winter apple in our collection" (of 200 varieties).

Next comes Mr. Downing, in his "Fruits and Fruit Trees of America" (1845) who describes it as follows:

"The Baldwin stands at the head of all the New England apples, and is unquestionably a first rate fruit *in all respects*. * * * Flesh yellowish white, crisp, with an agreeable mingling of the saccharine and acid, which constitutes a high flavor."

Our own estimate of the Baldwin as given in the "Fruits of America" (1848) reads as follows:

"Flesh yellowish, fine, crisp and tender, juice abundant, sugary, with a delicious admixture of acid, rich, brisk and high flavored."

I might multiply authorities who have placed the Baldwin where it belongs, at the head of all apples, for a temperate climate, for the Newtown pippin cannot be cultivated north of the Hudson River; but it would be quite useless. Some years ago, long before there was a demand for exportation to England, a cultivator who was about planting an orchard, and who did not care to make a failure, applied to one of the largest dealers in Boston, to give him his advice as to the kinds most desirable to plant. "Well," said the dealer, "it is a rather difficult question, as the public taste changes; still, I should advise you to plant at least *half* Baldwins." "But," said the cultivator, "will not the market be overstocked with this kind?" Without noticing the remark, he said, "Upon a second thought, I would plant *three quarters* Baldwins;" and scarcely giving time for a reply, he said, "Plant *all* Baldwins, there is no other apple that will pay."

Similar to this was the vote of the Western Fruit Growers' Association of New York, who, it is recollected, recommended three-quarters Baldwins.

The public, it is true, will buy the meanest fruit, as we have a witness in the Wilson Strawberry, and arguing no doubt upon the gullibility of purchaes, a few years ago Transcendant crabs were the coming fruit, and though not quite as bad as the Wilson, they did not take the place of either the Baldwin or Newtown Pippin. Our people had not got quite so depraved as to prefer Crabs to an eatable fruit. The fancy pictures of the dealers however, were too taking, and many a cultivator is now making up for the lost time for his credulity by grafting with eatable varieties.

As the discussion proceeded "Duchess of Oldenburg was named as a very profitable early variety, and several members pushed forward the Jonathan as the apple that will be called for in the markets twenty years hence." There is no fault to find with either of these fruits, but until the Williams and Red Astrachan are extinct, the Duchess of Oldenberg is of no value. The Jonathan is a superb apple, and there we must stop; for it is a slow, wiry, straggling grower, and can never be a profitable apple. I scarcely think a whole orchard would pay as much as a dozen trees of the Baldwin. Of its excellence there is not the least doubt. Judge Buel gave it a high character, and I can confirm all he said.

The Baldwin needs no praise; but I take this opportunity to say that I believe it to be the most perfect apple ever produced, either abroad or at home. Without a single fault, unless it is the tendency of the tree to injury in the Northern New England States when the temperature falls 30 deg. to 40 deg. below zero. Of vigorous growth, making a beautiful symmetrical head; with large ample foliage, which retains its verdure the whole summer; enormously productive. The fruit easily gathered; standing rough handling, and railroad shaking; in eating from December to July; just acid enough to be used for cooking, and tender enough in its season (Feb. to June) for the children to eat with perfect safety; what can we add to its merits? Familiar as I have been with the Baldwin, not having eaten any other apple only occasionally for 40 years, though my collection contains 250 kinds, I was never so much impressed with its excellence as in a recent voyage to Liverpool, when the captain of the steamship sent me a cup of coffee and a Baldwin apple every morning at sunrise, as an appetizer for breakfast.

We have the brilliant coated Williams, with its highly perfumed pinkish flesh, the best first early apple; followed by the Red Astrachan, which though rather tart, is beautiful, covered with its delicate bloom; and the incomparable Gravenstein, but it comes at a season when we have plenty of fine apples, and lasts only 5 or 6 weeks; and the delicious Melon, if we could only make it grow and get enough of it to pay for gathering. The luscious Newtown Pippin, which cannot be raised in New England, and the solid Pennock, which it takes two months of the West India climate to soften and render digestible and tasteless then; and last but not least the Northern Spy, if it would only bear in a lifetime, and stand the jarring and jolting of transportation without entirely spoiling the fruit. We have many excellent apples, the Hubbardston Nonsuch, Rhode Island Greening, Fameuse, Roxbury Russet, etc., but will any of them take the place of the Baldwin? perfect in shape, magnificent in color, crisp and tender in its flesh, of the highest flavor, keeping six months in the finest condition, transported to Calcutta, without a bruise or even tarnish to its oily like and polished skin, it is the very *ne plus ultra* of apples.

Speaking of the Pennock reminds me of a circumstance, which though not very important, shows how much we lose by Pomological errors. When a boy it was my greatest delight to be up at daylight to gather the windfalls from an old "Sopsavine" apple so called, and wishing my own children should enjoy the same gratification, I grafted an old Rhode Island Greening within a few rods of the house with the Bough, Red Astrachan, Northern Sweet and an apple, the scions of which were given me as the Garretson's Early, said to be the best early apple. After a time they came into bearing but the "Garretson's" did not color nor did not fall; in the autumn they were gathered as some new sort, for I did not at once recognize it. I kept them till late in the spring, and they were just as hard then as in October. It then occurred to me I had seen the apple before, and recognized it as the Pennock. The branch is full this year, and the Red Astrachans almost drop into your mouth as you swing in the hammock beneath. Our Michigan orchardists may prefer the high flavored and sunky Golden Russet, the Jonathan the Pennock or any other sort, but they will never find a brisk market for them as long as the Baldwin can be had.

The Horse.

OUR STUD-FARM.

Many farmers have in the past hesitated to launch into horse breeding, because of the lengthened interval between outlay and realization; but estimate the cost of rearing a steer and that of rearing a horse, and for the nonce setting aside early maturity, which many tenants of the United Kingdom still fail to realize, place the lapse of time at three years in both cases. The finishing in the former demands a greater drain on one's exchequer, when the consumption of ailment is considered—linseed, roots, corn, and hay. I estimate the steer to consume much more than the horse at this period. Three and a half to 7 pecks of corn per week—that is, feeding with regard to age on corn from the first—is ample to sustain a horse in idleness and in growing condition, with an occasional mash and a lock or so of hay. Beasts meet a buyer, for argument, from £28 to 40. A first-class brougham horse will make from double that amount—80 to 140 gs., and I have known Mr. Anderson (now Messrs. Steward, Green Street, Park Lane) give £800 and £1000 for a graduate in the field. The better you breed, the more money there is in it. Besides, in horse-breeding you have horse manure, a truly valuable adjunct in all tillages. Again, dealers until recently would look at nothing under 5; they now buy at 3 off. There are circumstances—exceptional caste, etc.—where it pays to hold to 5, but the bulk of the trade is worked at 5 coming or rising 5. Within the last year I have seen draught horses make their 80 and 120 gs. at rising 3 and rising 4, which, in the majority of cases, were not corn fed, as are the higher breeds, where precocity of size, stamina, courage, etc., are the *sine quanon.*

A middling horse is a drug, and a most disappointing sale; it clashes with imported horses, as these can be reared and show a good margin to the vendor at a nominal sum, which home-bred horses cannot, although the majority of them wear up in work; yet, as horses for price, the imported horse rules the market. When the Americans go in for our three-quarter and better bred half-bred mares to cross with their stout trotting blood, the position will assume a different aspect; but this is looking into the vista of the future with a vengeance. The trade will then be revolutionised. There is sure to be a large trade done with America, although they sometimes think, to their cost, anything is good enough for export. Nothing stops them as buyers of a tip-top animal, or any other article. Now horses worthy of the name and fit for European markets are getting scarce, and the market has hardened; they, as we, are handicaped with the weeds and the worthless. When will common-sense, self-interest, and liberality of plan come to the aid of the horse-breeder, as it has long since existed in the ranks of the cattle-breeder? It is impossible to say. The sooner the better for all concerned. Mate well, and do not grudge necessary outlay. A good service fee should be looked upon as a good investment—to be recouped at date of sale.

In breeding hacks, look to a well-turned neck, shortish back, deep well-laid shoulders, safe, quick action. For carriage horses, a lofty forehand, power and style of movement, action, and force—all-round goers. Hunters—stamina, stoutness, and weight-carrying ability. A horse is sure to sell well with good shoulders, back, and loins, two light sporting ends, clean, muscular, flat legs, sound feet, well broken, with good courage. Satisfactory sales are assured as each sale season returns.—*Agricultural (Eng.) Gazette.*

TRAINING HORSES.

[Philadelphia Record.]

A new and very simple method of training vicious horses was exhibited at West Philadelphia recently, and the manner in which some of the wildest horses were subdued was astonishing. The first trial was that of a kicking or "bucking" mare, which her owner said had allowed no rider on her back for a period of at least five years. She became tame in about as many minutes, and allowed herself to be ridden about without a sign of her former wildness. The means by which the result was accomplished was by a piece of light rope which was passed around the front of the jaw of the mare just above the upper teeth, crossed in her mouth, and thence secured back of her neck. It was claimed that no horse will kick or jump when thus secured, and that a horse, after receiving the treatment a few times, will abandon his vicious ways forever. A very simple method was also shown by which a kicking horse could be shod. It consisted in connecting the animal's head and tail by means of a rope fastened to the tail and then to the bit, and then drawn tightly enough to incline the animal's head to one side. This, it is claimed, makes it absolutely impossible for the horse to kick on the side of the rope. At the same exhibition a horse which for many years had to be bound on the ground to be shod, suffered the blacksmith to operate on him without attempting to kick, while secured in the manner described.

FEEDING PIGS.

BY J. W. SANBORN, B. S.,
Superintendent of the College Farm, Hanover, N. H.

[From advance sheets of the Report of the New Hampshire State Board of Agriculture.]

I give the somewhat broken results of a partially successful attempt at pig-feeding, believing that some of the facts noted will not be entirely without interest to many:—

Lot 1, consisting of two fall shotes, weighed, April 16, 215 pounds. Feed, cob meal.

Lot 2, consisting of two spring pigs, weighed, April 16, 47 3-4 pounds. Feed cob meal.

Lot 3, consisting of two spring pigs, weighed, April 16, 51 1-4 pounds. Feed clear corn meal.

Lot 4, consisting of two spring pigs, weighed, April 16, 48 3-4 pounds. Feed, meal of cobs, three parts to one of mixed fish and cotton-seed meal.

Lot 5, consisting of two spring pigs, weighed, April 16, 47 3-4 pounds. Feed, bran.

Weight of lot 1, June 9, 377 pounds; consumed 674 pounds.

Weight of lot 2, June 9, 75 pounds; consumed 185 pounds.

Weight of lot 3, June 9, 107 pounds; consumed 235 pounds.

Weight of lot 4, June 9, 70 pounds, consumed 174 pounds.

Lot 1, pounds of food to make one of growth, 4.16.

Lot 2, pounds of food to make one of growth, 6.7.

Lot 3, pounds of food to make one of growth, 4.9.

Lot 4, pounds of food to make one of growth, 7.8.

I have noticed in former experiments that coarse food, hard of digestion, is entirely unfitted for young pigs, and that the change of any animal from a better to a poorer food is followed by small consumption and light growth. The scales have repeatedly demonstrated the fact; and, as no good can come of such an attempt except as a warning to others, I shall in future work avoid both mistakes. It is not an infrequent habit of farmers to change both neat stock and sheep, as well as pigs, from good to poorer foods, and by some to feed young animals on coarse foods. I have usually changed food in experiments to note whether one set of the animals under experimental inquiry was not better growers than the other. The objection noted is so strong as to overcome the object sought. In unpublished experiments I have fed through without a change. The pigs in this experiment were fed two or three weeks after weaning to get them accustomed to other foods. The pigs in lot 5, as well as in lots 1 and 4, ate very poorly; suddenly 1 in lot 5 died of indigestion; all of which I expected, but desired to just know what a pig's stomach would do with bran.

It will be readily seen that the object of the first four sets was to determine whether a shote is a more economical pork-producer than a pig, and whether corn-cobs ground are profitable to feed. This period of fifty-six days affords for these young pigs no fair test, as the low amount consumed would indicate, except in the case of lot 4 against lot 2. Of the 7.8 pounds of food eaten to make one of growth, two were fish and cotton-seed meal, costing 4 cents. The 6.7 pounds required to make a pound of growth for lot 2 cost 6.7 cents; then 5.8 pounds of cobs or meal in lot 4 returned the difference between 4 cents and 6.7 cents or 2.7 cents, or 48 cents per 100 pounds. These cobs were corn of last season, not so soundly ripe as usual, and being in large bins not dry enough to grind fine. None of the products of last year on this farm have proved as nutritious in feeding as usual. The same fact is noted with the corn meal in this experiment, requiring more pounds to make one of growth.

Weight of lot 1, July 23, 492 pounds; ate 590 pounds; required to make one of gain, 5.1 pounds.

Weight of lot 2, July 23, 125 pounds; ate 185 pounds; requiring to make one of gain, 3.6 pounds.

Weight of lot 3, July 23, 170 pounds; ate 272 pounds; required to make one of gain, 4.4 pounds.

During this period our young pigs became accustomed to cob meal, and, while the gain is light, yet it is remarkable for the small amount consumed, and shows the pig to compare favorably with the shote for pork production. Cob meal shows well against clear meal. Lot 4 had to be dropped from the list; the food was too coarse, but will yet be shown a very economical one for older animals.

THIRD PERIOD, TO SEPTEMBER 13.

Weight of lot 1, 625 pounds; food, clear meal; ate 660 pounds; to make one of gain, 4.9 pounds.

Weight of lot 2, 187 pounds; food, cob meal; ate 360 pounds; to make one of gain, 4.3 pounds.

Weight of lot 3, 187 pounds; food, clear meal; ate 360 pounds; to make one of gain, 5.5 pounds.

Weight of lot 4, 340 pounds; food, bran and clear meal; ate 416 pounds; to make one of gain, 3.9 pounds.

Pigs against shotes and cob meal against clear meal, again make a good showing. Lot 4, is a new lot, and shows against lot 3 that bran and meal mixed, to older pigs than before, work well.

FOURTH PERIOD, TO NOVEMBER 5.

Lot 1, feed cob meal, ate 644 pounds; weight 700 pounds; food to one pound of gain, 8.5 pounds.

Lot 3, feed cob meal, ate 215 pounds; weight, 240 pounds; 5 pounds gain.

Lot 4, feed as before, ate 385 pounds; weight, 410 pounds; food to make one of gain, 5.5 pounds.

Lot 1, during the previous period, had begun to lay on fat. The result of a change to a coarse food and one not adapted to fatten is seen both in lots 1 and 3.

Our shotes for the summer have eaten heartily and made a good gain per day. The pigs of lot 2 have eaten little and gained slowly, yet they have made better use of their food than the shotes. The results with the cob meal are in agreement with those of last year, and for the pig well started there can be no doubt that cob meal is more economical than clear meal.

Reviewing the experiments for the past four years leaves no doubt that it is an exceedingly wasteful practice to feed clear corn meal alone to a growing pig.

For the second and third periods, allowing cob meal to be worth one cent per pound, we find the growth of lot 2 has cost 3.95 cents; I have sold them for shotes at six cents per pound. For the first and second period, or for ninety days, the growth of shotes cost 4.6 cents per pound, and are now sold for five cents, live weight; 5 1-2 cents has been paid here, this fall, earlier. These lots have been confined closely or entirely to the foods named and weighed. A little bone was occasionally added, and this is the first time for four years that I have not had pigs cripple in the hind legs. They do not have large pens.

☞ Hard lumps in the udder are a symptom of garget, and it would be well to get rid of these before a cow comes in. The proper course would be to give a pound of Epsom salts, and repeat if necessary in a few days; to bathe the udder in warm water, and to give only very moderate feeding, nothing but grass and no bran or meal until the calf is a week old, and then only very sparingly.

☞ Horses slobber from eating clover. An exchange says: This is annoying, especially in the driving horse, but the remedy is very simple and easy at hand, consisting of a head of cabbage fed to t[illegible] just before using him for work or [illegible] It is cheap and effective.

The Poet's Corner.

RECOMPENSE.

When the spirit, wearied here,
Looks beyond for its true rest,
Will it tremble there in fear,
Or, so now, hope in distrust?
No; that moment when the veil
Shuts the mortal scene from view,
Every shade of grief shall fall,
Every sadness that it knew.

On the brows perplexed with care
Holy hands shall smooth each line,
And the eyes of wistful prayer
Shall in grateful gladness shine,
Where the lips that quiver, yearning
To reveal the secret wrong,
Shall, enfranchised there, be turning
Lamentations into song.

Bowed with many a care and sorrow,
Generations toil and die;
But when comes that glorious morrow
They shall cease to strive or sigh
When they stand at last unfettered
From the chains that bound them here,
Every bondage shall be shattered,
Every thraldom disappear.

There the sun of Heaven's morning
Light each pallid, tear-stained cheek,
With the glow of joy adorning
All the forehead of the meek.
Courage! hearts of faith now bearing
Heavy burdens all the way,
Your's the bliss of victory sharing
When the night shall turn to day.

—Baltimore Weekly Sun.

Ladies' Department.

AN ESCAPE.

At one time during the war carried on by the Garibaldians in the Tyrol in 1866, Brescia was the base of the army, which was over thirty thousand strong. Beyond this town there was no railway, and all provisions had to be taken up in carts some forty miles.

It was in this campaign, in my capacity of correspondent, that an adventure happened to me, which made me thoroughly sick of camp-followers.

I had arrived at the little town of Rocca d'Anfo, charmingly situated on, or rather above, the Lago d'Idro. It was at the time Garibaldi's headquarters, and some eight or ten thousand men were camped in the neighborhood. Garibaldi himself was lying in the Castle, from a shot-wound which he had received six days before, at the fight on Monte Suello. The village was crowded with troops and commissariat wagons, and I searched in vain for a place to sleep in. Fortunately, I succeeded in purchasing three loaves of bread, one for myself and two for my horse; and when night came on I left the village, turned up a by-lane, and entered a vineyard.

Here I tied my horse up, took his bridle from his mouth, broke up the bread, and fed him; and then putting my valise under my head, and my pistols close within reach, I wrapped myself in my cloak, and was soon asleep. The next morning I rode on to Bagadino, which was the farthest point to which the Garibaldians had advanced, although not the point at which they most nearly approached the Austrian line. This was not far some distance along the hillside, above Lago d'Idro, and three miles beyond Rocca d'Anfo was the scene of the fight on July 4th, in which Garibaldi was wounded. There the Garibaldians had by no means covered themselves with honor, for they had been beaten back by a very inferior force of Tyrolese riflemen, who had lined the slope of the hill.

At this point the road forked, the right-hand road falling gradually from the high level on the hillside down to Caffaro, which is a village situated in the valley just above the head of the lake. It is divide d in two by a considerable stream coming down from the ravine on the left. It was up this ravine that the left-hand branch of the road ran to Bagadino, five miles distant.

It was a good-sized village, very prettily situated, and crowded with the red-shirts. Every house was occupied, and I saw that a search for a bed was likely to be hopeless. I bought some bread, and resolved that I would not to sleep out in the air again, and it being above all necessary for me to find some quiet place where I could write my letter, I made up my mind to push on. There were no troops beyond Bagadino, and I found by the map that there was a small village some three or four miles further along the road. As there were, I knew, no Austrians in that direction, I determined to push on. I had met several officers of my acquaintance, and had done a good deal of talking, consequently it was getting dark when I rode out of Bagadino.

The three miles were dreadfully long ones, and it was dark before I came to a house of any kind. It stood, as far as I could see, by itself, but I troubled little about that, for over the door was a sign. It was too dark to read it; but I saw the place was an inn. In the yard beside it were a few animals which looked to me like horses or mules. I shouted, but no one came out; so I got off my horse, tied his bridle up to a ring by the door, and went in. The door opened directly into a large room, or rather kitchen, where five or six men were drinking and smoking. There was, I observed, a general start at my entry, and more than one hand clasped the knife in his sash.

"Good evening, signors," I said. "Is the landlord here? I can't make any one hear outside."

"Si, signor," one of the party said, rising. "Eccolo—what can I do for your iordship?"

"I want something to eat and a bed," I said. "My horse is at the door, and I want a night's lodging for him, too."

"Impossible!" the host said, with a despairing shrug of the shoulders. "I am more than full already."

"I don't want to ride back to Bragadino," I said. "Can you direct me to any house near?"

At this moment the host was called sharply by two of the men, who had spoken together in a low voice. He went to them, and a short conversation took place in a whisper. Then the landlord returned.

"These signors have expressed their willingness to give up their room, if you will pay them for the accommodation. As for the horse, there is a shed empty close by here."

"Gladly," I said, delighted at the thought of a bed. "If I can have the room to myself I will willingly give them five francs for their civility in giving up their room to me."

The bargain was struck. I then went out with the landlord, put the horse's bridle on my arm, and walked with him to a small shed a hundred yards back upon the road. It was empty, and the landlord brought in a large armful of hay which he threw before the horse. I took the saddle off, unstrapped the valise and holsters, and, putting them on my arm, returned with the landlord.

"Have you no stables near the house?" I said.

"Yes," he said, "but they are occupied."

I thought this was curious, but thinking over the mules I had noticed in the yard, and the old Garibaldian caps which one or two of the men in the inn-parlor had on the table before them, I jumped at once to the conclusion that the fellows were a party of commissariat mule-drivers who had managed to steal away, with the intention of crossing over into the Trent valley, and there disposing of the animals and their burdens.

I understood now why they had so willingly given up their room to me, rather than risk my returning to Bragadino, whence I could, if I had suspected them, dispatch a company of soldiers, when their ruse would probably have been a short one.

As I thought the matter over, I felt that I had got into an unpleasant position; but with the brace of heavy revolvers in my holster, I felt fully a match for the people at the inn. When I got in I was shown to the room, which was of fair size and much more comfortable than I had anticipated. Here I had a wash, and then, taking the precaution of locking the door and putting the key in my pocket, I went down stairs again. Two of the men had gone out, but I concluded, after a minute examination of their countenances that the five who remained were about as unmitigated ruffians as one could wish to see. I was kept some time waiting for my food, but when it came I was more than repaid for the delay, for the dishes were fairly cooked, and to one who had eaten nothing but bread for forty-eight hours, were trebly enjoyable. The wine, however, I did not like; it had a peculiar flavor about it which seemed unnatural. I might not have noticed it at any other time, but my suspicion having been already aroused, it struck me at once that it was drugged.

As I felt that I was being watched, I gave no signs of objecting to the wine, but filled the tumbler with it, and from time to time took the smallest possible sips at it. As I finished my supper and rose from the table the landlord, who had remained in the room, said in a tone which was meant to be pleasant, but in which I detected anger and disappointment, "The signor does not like the wine?" "Upon the contrary," I said, "the wine is excellent. Wine, however, does not agree with me; it turns acid, and the doctor forbids it. Oh, dear," I yawned, as I lit the candle, "how tired I am, to be sure! Good night!" A surly good night was the reply. I went up stairs, unlocked the door, and found that it would not lock on the inside. With a great exertion of my strength I lifted a heavy chest, carried it quietly across the room, and set it down noiselessly against the door. Then I sat down to think. It was evident to me that these scoundrels of mule-drivers were some of the scum of one of the large towns, and that now, as they were deserting with the animals and goods under their charge, they would not hesitate to add to their offences by the trifling crime of murdering a foreigner, about whom no inquiries were likely to be made; and it was also evident that in the landlord of this lively little inn they had a kindred spirit. Confident in my revolvers, and having good reason to believe that there were only six of them, I felt excited rather than alarmed; however, I determined at once to escape from the window if possible. I thought it probable that I was watched, and therefore opened the window carelessly and put out my arm, as though to feel if the light mist which had begun to fall as I returned from stabling my horse was still coming down.

My attitude was careless, but as my face was in shadow I was able to use my eyes and saw two figures standing on the opposite side of the road. With an exclamation of disgust at the rain, I closed the window again. I had little doubt before; I had none now. I went to my holsters, took up my pistols, and uttered a mental thanksgiving that I had them with me. My plan was simple; I had nothing to do but to sit down, keep awake, and wait to be attacked. I had little fear of going to sleep, therefore I drew a chair against the bed so that I could sit up and at the same time rest, put the candle and my pistols on a table beside me, put another chair for my feet, and sat down. I did not mean to blow the candle out for a few minutes, so as to allow the men outside to believe that I was quietly getting into bed. I took up one of my pistols, looked at it, took aim at the door, and pressed the trigger to raise the hammer a little, for it was a double action weapon. To my surprise, the trigger, instead of yielding to my finger, remained stiff and immovable. I pressed a little stronger to make sure it was not fancy, but it was fixed. "To think of its getting out of order at this moment of all others!" I said to myself, a shiver of alarm running through me as I examined it. Something was evidently the matter.

At last, scrutinizing it very closely by the candle almost a cry broke from me as I saw the piece of iron of some sort had been jammed in behind the trigger. I caught up the other pistol—my worst fears were realized. It also had been disabled. I sat half stunned by the shock. I was looking Death very nearly in the face now, and the prospect did what it had never done before or since—brought out a cold perspiration.

I, was a minute or two before I could realize the position. I understood it at last. The landlord had another key to my room, and while I was waiting for supper he had entered the room and disabled my pistols. I was indeed a rat caught in a trap, and a rat almost without teeth. I was myself again now, and could think calmly on my chances. They were very small. I had a capital knife with a good-sized spring blade, which I used to cut my bread with. That was something anyhow. But more than this, I relied on the butt-end of one of my heavy pistols. I am a powerful man, and relied much on a good blow, whereas with knives they would be my equals. However, I resolved to keep the knife in my left hand to use when they closed. My plan of campaign was now determined upon. I would wait quietly until I heard them at my door. No doubt four of them would be there. Directly I heard them I would jump from the window, which was about four feet from the ground. I ought," I argued with myself, to be able to knock those two fellows down there, and be off into the fields before the men at my door can understand what is up and be down to the assistance of those outside." The prospects were not so bad after all. My spirits rose, and I looked round